

APA 19/20

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **57**
- SRM **10.5**
- Style **Vienna Lager**

Batch size

- Expected quantity of finished beer **48 liter(s)**
- Trub loss **5 %**
- Size with trub loss **50.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **63.7 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **5 liter(s) / kg**
- Mash size **75.8 liter(s)**
- Total mash volume **91 liter(s)**

Steps

- Temp **70 C**, Time **60 min**

Mash step by step

- Heat up **75.8 liter(s)** of strike water to **75C**
- Add grains
- Keep mash **60 min** at **70C**
- Sparge using **3.1 liter(s)** of **76C** water or to achieve **63.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 7 kg (46.2%) | 80 % | 5 |
| Grain | Viking Vienna Malt | 3 kg (19.8%) | 79 % | 7 |
| Grain | Viking Munich Malt | 3 kg (19.8%) | 78 % | 18 |
| Grain | Bestmalz Red X | 1 kg (6.6%) | 79 % | 30 |
| Grain | Cara-Pils/Dextrine | 1 kg (6.6%) | 72 % | 4 |
| Grain | Black Barley (Roast Barley) | 0.16 kg (1.1%) | 55 % | 985 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil | Columbus/Tomahawk/Zeus | 100 g | 60 min | 15.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------|------|-------|--------|------------|
| Farmgarden | Ale | Slant | 50 ml | Lallemand |